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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/673,779	09/29/2003	Shuhei Yamada	011.2-11335-US01	2487

490 7590 05/31/2005

VIDAS, ARRETT & STEINKRAUS, P.A.
6109 BLUE CIRCLE DRIVE
SUITE 2000
MINNETONKA, MN 55343-9185

EXAMINER

GOUDREAU, GEORGE A

ART UNIT	PAPER NUMBER
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1763

DATE MAILED: 05/31/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/673,779

Applicant(s)

YAMADA ET AL.

Examiner

George A. Goudreau

Art Unit

1763

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 15 March 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-11 is/are pending in the application.
- 4a) Of the above claim(s) 11 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-10 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

George A. Goudreau
GEORGE GOUDREAU
PRIMARY EXAMINER

5-051

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____

- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

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1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

3. Claims 1-10 are rejected under 35 U.S.C. 103(a) as being unpatentable over the reference as applied in paragraph 3 of the previous office action further in view of Tanaka et. al. (JP 2001-118,815).

The reference as applied in paragraph 3 of the previous office action fails to disclose the usage of the silica abrasive particles in their cmp slurry with the specific properties, which are claimed by the applicant.

Tanaka et. al. teach that it is desirable to employ colloidal silica particles with a primary diameter of (8-50) nm., and a secondary diameter of (12-200) nm. in a cmp slurry, which is used to cmp polish a wafer. This is discussed specifically in the abstract; and discussed in general on pages 1-8.

It would have been obvious to one skilled in the art to employ the colloidal abrasive particles of Tanaka et. al. in the cmp slurry as applied in paragraph 3 of the previous office action based upon the following. This simply represents the usage of an alternative, and at least equivalent means for providing a source of abrasive particle in a cmp slurry to the specific means which are employed in paragraph 3 of the previous office action. Further, Tanaka et. al. teach that it is desirable to employ their abrasive particles in a cmp slurry, which is used to polish a semiconductor substrate.

4. Claims 1, and 7-10 are rejected under 35 U.S.C. 103(a) as being unpatentable over the reference as applied in paragraph 3 of the previous office action further in view of Kato et. al. (5,904,159).

The reference as applied in paragraph 3 of the previous office action fails to disclose the usage of the silica abrasive particles in their cmp slurry with the specific properties, which are claimed by the applicant.

Kato et. al. teach that it is desirable to employ fumed silica abrasive particles with a primary diameter of (5-30) nm., and a secondary diameter of (30-100) nm in a cmp slurry, which is used to cmp polish a wafer. This is discussed specifically in the abstract; and discussed in general in columns 1-18. This is shown in figure 1.

It would have been obvious to one skilled in the art to employ the fumed abrasive particles of Kato et. al. in the cmp slurry as applied in paragraph 3 of the previous office action based upon the following. This simply represents the usage of an alternative, and at least equivalent means for providing a source of abrasive particle in a cmp slurry to the specific means which are employed in paragraph 3 of the previous office action.

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Further, Kato et. al. teach that it is desirable to employ their abrasive particles in a cmp slurry, which is used to polish a semiconductor substrate.

5. Applicant's arguments with respect to claims of record have been considered but are moot in view of the new ground(s) of rejection.

6. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

7. Any inquiry concerning this communication should be directed to examiner

George A. Goudreau at telephone number (571)-272-1434.

A handwritten signature in cursive script that reads "George A. Goudreau". The signature is written in black ink and is positioned above the printed name and title.

George A. Goudreau
Primary Examiner
Art Unit 1763